

**STATE OF NEW MEXICO  
BEFORE THE WATER QUALITY CONTROL COMMISSION**

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**In the Matter of:** )

**PROPOSED AMENDMENT** )  
**TO 20.6.2 NMAC (Dairy Rules)** )

**No.: WQCC 09-13 (R)**

**New Mexico Environment Department,** )  
**Petitioner.** )  
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**WRITTEN TESTIMONY OF WILLIAM OLSON**

My name is William Olson, and I am the Bureau Chief of the Ground Water Quality Bureau of the New Mexico Environment Department ("NMED" or "Department"). I am presenting this written technical testimony on behalf of the Department in support of the Department's petition for dairy industry specific rules filed with the New Mexico Water Quality Control Commission ("Commission") on January 29, 2010.

**I. BACKGROUND AND EXPERIENCE**

I have a Bachelors of Science degree in Geology and a Masters of Science degree in Hydrology from the New Mexico Institute of Mining and Technology, and over 23 years of experience in working on ground water discharge permits and remediation of contaminated ground water under both New Mexico Water Quality Control Commission and New Mexico Oil Conservation Division rules and regulations.

I have held the position of Bureau Chief of the Ground Water Quality Bureau since October of 2004. As Bureau Chief, I am responsible for supervising and managing

environmental regulatory personnel of the Ground Water Quality Bureau's Pollution Prevention Section, Remediation Oversight Section, Mining Environmental Compliance Section, Superfund Oversight Section, and Grants and Planning Section. My duties include directing and approving the permitting and enforcement of discharge plans, and the investigation and abatement of contaminated soil and ground water pursuant to the New Mexico Water Quality Act (WQA) and Commission regulations; investigation and remediation of contaminated properties pursuant to the Voluntary Remediation Act and Voluntary Remediation Regulations; investigation and remediation of abandoned sites in support of the U.S. Environmental Protection Agency (EPA) Superfund Program; and implementation of the Department's responsibilities under the New Mexico Mining Act.

I previously served on the Commission as the designee of the New Mexico Oil Conservation Division for a period of approximately 13 years, and have currently been serving on the New Mexico Oil Conservation Commission as the designee of the Secretary of the Energy Minerals and Natural Resources Department since September of 2005.

A copy of my resume is marked as **NMED NOI Exhibit A** and is attached to the Department's Notice of Intent to Present Technical Testimony ("NOI"). It is accurate and up-to-date.

## **II. INTRODUCTION**

This hearing is about protection of ground water resources in New Mexico through the adoption of new facility specific discharge permit regulations for dairy facilities. New Mexico is an arid state, with limited water resources. It is growing and developing rapidly, placing an increasing demand on those limited resources. New Mexicans obtain approximately 90 percent

of their drinking water from ground water sources.<sup>1</sup> It is therefore extremely important that we protect those resources. Towards that end, the Legislature enacted the Water Quality Act and subsequently the Commission, in 1977, adopted regulations to protect all surface and subsurface waters in New Mexico.

NMED NOI Attachments 1 – 10 of the Department's NOI constitute the Department's direct testimony and exhibits in support of the Department's proposed Dairy Rules filed with the Commission on January 29, 2010. The witnesses for the Department are: myself; Sarah McGrath, Geoscientist and Agricultural Team Leader, Ground Water Quality Bureau; Bart H. Faris, Hydrogeologist and Compliance and Enforcement Team Leader, Ground Water Quality Bureau; William W. Pearson, Geoscientist and Agronomist, Ground Water Quality Bureau; George B. Schuman, Program Manager, Pollution Prevention Section, Ground Water Quality Bureau; Robert George, Domestic Waste Team Leader, Ground Water Quality Bureau; and Charles Thomas, Engineer, Mining and Minerals Division, New Mexico Energy, Minerals and Natural Resources Department. Resumes for each of the Department's witnesses are attached as to the NOI as **NMED NOI Exhibits A through G**, respectively.

My testimony will discuss the background and reasons for promulgating Dairy Rules,<sup>2</sup> the overall goals and the necessity of the Department's proposed Dairy Rules, and the statutory criteria the Commission must consider in adopting Dairy Rules. Following this the Department will present testimony from each of the Department's witnesses and supporting testimony from each witness for specific provisions of the Department's proposed Dairy Rules. For the reader's convenience, in NMED NOI Attachment 8 the Department presents the text of each proposed

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<sup>1</sup> 2008-2010 State of New Mexico CWA §303(d)/§305(b) Integrated Report, P.ix.

<sup>2</sup> Under the State Rules Act, at NMSA 1978, § 14-4-2, a "regulation" is a "rule." A rule is not valid or enforceable until it is filed with the State Records Center and published in the New Mexico Register. NMSA 1978, § 14-4-5. To be consistent with the requirements of the State Records Center, NMED uses the term "rule" instead of the term "regulation" throughout its testimony and its proposal.

rule provision followed immediately by testimony explaining and supporting the provision. In some instances, multiple Department witnesses testify about the same provision. The testimony of each of the Department's witnesses is identified throughout the document and appears in italics.

### **III. BACKGROUND**

#### **A. PRE-2009 WQA AMENDMENT DISCHARGE PERMITTING**

Historically, the discharge permitting process has been inefficient in addressing the threat to ground water posed by dairy facilities. Before the legislature amended the WQA in 2009, the permitting process was based on a model where an applicant for a discharge permit at a dairy facility would propose a plan to protect ground water for the Department's review. There was no guidance or specificity in the rules for the measures to be taken to protect water quality except that the plan as proposed by the applicant had to demonstrate that the proposed plan would not cause an exceedance of the Commissions ground water quality standards. In fact, prior to the 2009 WQA amendments, the WQA in 74-6-4.D NMSA 1978 stated that regulations of the Commission *"...shall not specify the method to be used to prevent or abate water pollution but may specify a standard of performance for new sources that reflects the greatest reduction in the concentration of water contaminants that the commission determines to be achievable through the application of the best available demonstrated control technology, processes, operating methods or other alternatives, including where practicable, a standard permitting no discharge of pollutants."* Under the rules adopted by the Commission in 1977 pursuant to this limitation, the Department would either approve the plan by issuing a discharge permit with conditions or disapprove the plan.

Under Subsection A of 20.6.2.3108 NMAC,<sup>3</sup> an applicant needed to propose very little to trigger the Department's administrative review. As a result, the Department would often review administratively complete applications that were lacking in technical details. This practice led to a repetitive back-and-forth cycle where the Department would request additional information, the applicant would submit additional information and the Department would review the additional information. This back-and-forth cycle would often be repeated several times during the application review process. This approach has proven to be very slow and resource intensive. In extreme cases, the permitting process has dragged on for several years. (NMED Exhibit WO-1).

Since the adoption of the rules in 1977, the Department has discovered that some dairy operational and disposal practices have failed to prevent ground water pollution and have resulted in ground water contamination. Over time the number of the cases of ground water contamination at dairy facilities has been increasing as more monitoring data is obtained at these facilities. The Department has documented that currently 57% of dairy facilities have caused nitrate contamination of ground water. Department witness Sarah McGrath will testify in detail regarding the number of cases of ground water contamination related to dairy facilities (See NMED NOI Attachment 2). Department witness Bart Faris will also testify regarding the magnitude and extent of ground water contamination related to dairy facilities (See NMED NOI Attachment 3).

The early discharge permits issued by the Department did not contain many conditions of approval. As cases of ground water contamination at dairies were discovered over time, in order

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<sup>3</sup> Under Subsection A of 20.6.2.3108 NMAC, an applicant need only provide the proposed locations and newspapers for public notice along with: (1) the name and address of the proposed discharger; (2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks; (3) a brief description of the activities that produce the discharge described in the application; (4) a brief description of the expected quality and volume of the discharge; and (5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge.

to address practices that failed to protect or monitor ground water quality, the Department would condition approval of a permit to correct the practice or institute a new practice. Due to the limitations in the pre-2009 WQA in 74-6-4.D NMSA 1978, conditioning the approval of a permit was the only permitting mechanism where specific practices could be addressed. Under this process the permittee was allowed to challenge permit conditions through the hearing process and ultimately appeal the conditions to the Commission. By 2008, the Department's discharge permit template evolved to contain dozens of standardized permit conditions and individual site specific conditions intended to protect and monitor ground water quality. (NMED Exhibit WO-2).

In 2007, as the permit conditions were evolving the dairy industry started to raise concerns over additional permit conditions, especially conditions requiring the installation of monitoring wells and the synthetic lining of dairy wastewater impoundments. In late 2007, the dairy industry organized a group called the Dairy Industry Group (DIG) which called on the Department to meet with DIG to negotiate and standardize certain dairy permit conditions. DIG also requested that the Department place dairy discharge permit renewals on hold to await the outcome of negotiations. The Department agreed with both of these requests and negotiations on permit conditions were subsequently completed in the summer of 2008. The Department made several agreements with DIG on the content of these permit conditions which the Department agreed to incorporate as standard dairy permit conditions. (NMED Exhibit WO-3). At this point, the Department began re-processing dairy permit renewals using the agreed upon permit conditions. However, in the fall of 2008 the Department began receiving requests for hearings from dairy permittees on the renewal of these permits again stalling the permit renewals of dairy facilities.

## **B. 2009 WQA AMENDMENT**

In early 2009, the dairy industry lobbied the legislature for a change to the WQA which would require the adoption of specific rules for the dairy industry to monitor ground water quality and to prevent ground water pollution. The dairy industry sought certainty and specificity in rules instead of the uncertainty produced by the Department's increasing number of permit conditions. The Department agreed with the change to the WQA because dairy industry specific rules offered an opportunity to make the permitting process more clear, effective and efficient, and to provide certainty and specificity to the permit applicant and/or permittee on the requirements for obtaining a discharge permit, and thus offering better protection for ground water.

The 2009 WQA amendment initiated a paradigm shift in the rulemaking and permitting process affecting the dairy industry. Most significantly, the 2009 amendments inserted a new Subsection K of Section 74-6-4 of the WQA which allows the Commission to adopt regulations specific to particular industries, and directs the Commission to promulgate industry specific rules for the dairy industry and the copper industry. The 2009 amendments deleted the prior provision in the WQA in 74-6-4.D NMSA 1978 stating that *"regulations shall not specify the method to be used to prevent or abate water pollution,"* and instead inserted in new Subsection K of Section 74-6-4 of the WQA language stating that the Commission *"shall specify in regulations the measures to be taken to prevent water pollution and to monitor water quality."* (NMED Exhibit WO-4). This is a major paradigm shift especially considering that, up until the 2009 amendments to the WQA, Subsection D of Section 74-6-4 of the WQA explicitly prohibited the Commission from promulgating rules that specify methods for preventing or abating water

pollution. (NMED Exhibit WO-4). The WQA now places the onus on the Commission to promulgate dairy industry rules that specify the methods for protecting and monitoring ground water quality.

This paradigm shift carries over to the issuance of permits. The 2009 amendments to the WQA placed new language in Subsection D of Section 74-6-5 stating that, ***“[a]fter regulations have been adopted for a particular industry, permits for facilities in that industry shall be subject to conditions contained in the regulations.”*** (NMED Exhibit WO-4). Under this new approach, once a condition for a dairy discharge permit passes the rigors of a public rulemaking process and is adopted by the Commission in a rule it applies to discharge permits for dairy facilities. If an applicant, permittee or public member wishes to challenge such a condition in a regulation, they must do so in the rulemaking process. They can not challenge the application of such a condition contained in the regulations during the discharge permit process. The application of dairy industry specific rules to a discharge permit for a dairy facility is now required by the WQA.

With these amendments, the legislature swept away the applicant and/or permittee driven permitting process for meeting a standard of performance of submitting discharge plan proposals which must demonstrate that a proposed discharge will not cause an exceedance of Commission ground water standards. Instead, under the amended WQA the Commission must set forth the measures to be taken to protect and monitor ground water quality in dairy industry specific rules. Although the WQA still authorizes the Department to impose conditions in addition to those contained in the dairy rules,<sup>4</sup> the clear emphasis of the 2009 amendment is to place permit

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<sup>4</sup> Subsection D of NMSA 1978, Section 74-6-5 (2009) later states, “[a]dditional conditions on a final permit may be imposed if the applicant is provided with an opportunity to review and provide comments in writing on the draft permit conditions and to receive a written explanation of the reasons for the conditions from the constituent agency.”



conditions into dairy industry specific rules and to require compliance with the conditions in the rule upon adoption.

### **C. DEVELOPMENT OF THE DEPARTMENT'S PROPOSED DAIRY RULES**

Once the 2009 WQA amendment passed the legislature and was signed by the Governor, it was necessary for the Department to again place renewal of discharge permits on hold due to the need to develop dairy industry specific rules pursuant to the WQA. The Department started working on a draft of a proposal for dairy rules after the 2009 WQA amendment was signed. On April 14, 2009, the Department briefed the Commission of the effects of the 2009 legislative changes to the WQA and presented a tentative schedule for development and adoption of specific rules for dairy facilities. On May 22, 2009, the Department released an initial discussion draft for public comment. The majority of the initial discussion draft was comprised of the standardized permit conditions that the Department had developed over the years as well as existing Department guidance documents for monitoring well construction and engineering requirements (NMED Exhibits WO-2 and WO-5). The initial discussion draft also incorporated prior agreements that had been reached with the dairy industry in the 2007 and 2008 meetings (NMED Exhibit WO-3). In effect, the initial discussion draft represented the compilation of the institutional and historical knowledge the Department had gained in over 30 years of regulating the dairy industry.

From June 1, 2009 through June 23, 2009, the Department held evening public meetings in Hobbs, Clovis/Portales, Roswell, Mesquite and Los Lunas to inform the public about changes in the WQA, the legislative requirement for dairy industry specific rules, and to encourage the submission of comments on the Department's May 22, 2009 initial discussion draft. (NMED

Exhibit WO-6). The Department also notified dairy industry permit holders of scheduled meetings during the day of each public meeting to reach out directly to dairy facility permittees for input (NMED Exhibit WO-7). However, the Department held only one such permittee meeting on the same day as the Clovis/Portales public meetings. The Department cancelled the remainder of the permittee meetings because the dairy industry boycotted the meetings (NMED Exhibit WO-8).

After the public meetings, pursuant to the requirements in the new Subsection K of Section 74-6-4 of the 2009 amended WQA, the Department then convened an advisory committee "to advise [it] on appropriate regulations to be proposed for adoption by the commission." (NMED Exhibit WO-9). The advisory committee was comprised of dairy industry members, dairy industry consultants, dairy trade associations, environmental groups, academic members, other state agencies with links to dairies, health associations, and general public members (NMED Exhibit WO-10). The Department's staff discussed the initial discussion draft with the advisory committee and solicited ideas on any other appropriate regulations for dairy facilities at meetings on June 26, July 8 and July 15, 2009.

On July 14, 2009 at a regular meeting of the Commission, the Department along with the dairy industry presented a negotiated schedule to the Commission for the development and adoption of dairy regulations that incorporated an opportunity for public input and stakeholder negotiation pursuant to the new Subsection K of Section 74-6-4 of the 2009 amended WQA. This negotiated schedule was approved by the Commission.

Based upon the input from the advisory committee the Department revised the initial discussion draft and on August 7, 2009 released a revised discussion draft to the public to solicit additional public comments and to solicit stakeholders for negotiations over the content of

proposed dairy regulations. The Department revised its proposal after receiving the additional public comment and used that revised proposal as its starting point for stakeholder negotiations.

In accordance with the approved schedule of the Commission, from October 15 through November 30, 2009, the Department engaged in extensive negotiations with various industry and public members that previously identified themselves as stakeholders regarding dairy industry specific rules (NMED Exhibit WO-11). Based on those stakeholder negotiations, according to the schedule adopted by the Commission, the Department developed a revised dairy regulation proposal and filed it with the Commission as part of the Department's rule-making petition on December 22, 2009. At that time the various stakeholders wished to provide additional comments on the Department's proposed rule in its December 22, 2009 rule-making petition. The Department agreed to accept additional comments from the stakeholders on the December 22, 2009 proposal by January 19, 2010. The Department received and considered those comments, revised its proposal and filed a revised rule-making petition with the Commission on January 29, 2010. The Department subsequently issued public notice of the Commissions rule-making proceedings. Notice of the hearing has been timely published in the New Mexico Register, Albuquerque Journal, Las Cruces Sun News, Hobbs News Sun, Roswell Record, Clovis News Journal, and Portales News Tribune and was mailed or emailed to all persons who have expressed an interest in being notified of this rulemaking.

#### **IV. OBJECTIVES OF THE DEPARTMENT'S PROPOSED DAIRY RULES**

The overarching goal of the Department's proposed Dairy Rules is to prevent water pollution and monitor ground water quality affected by dairy facilities in the most effective, efficient and reliable manner. As discussed above, in over 30 years of permitting dairy facilities,

the Department has learned through ground water monitoring which practices fail to protect or monitor ground water quality. Thus, the Department's proposed Dairy Rules lay out specific, clear and effective requirements for dairy facilities to prevent water pollution and monitor ground water quality.

The basic regulatory tool for preventing water pollution and monitoring ground water quality at dairy facilities is a valid and enforceable discharge permit. There is currently a large gap in the issuance of discharge permits for dairy facilities due to prior requests from the Dairy Industry Group in 2007 to place issuance of discharge permits on hold to negotiate the content of permit conditions, subsequent unresolved dairy hearing requests on discharge permit conditions in late 2008, and the need to place discharge permitting on hold in 2009 in order to develop Dairy Rules pursuant to the amended WQA. The reasons for these permitting lapses are discussed in more detail in my testimony above. At this time, 53.5% of dairy facilities are currently discharging under expired discharge permits (NMED Exhibit WO-12). In addition, there are 21 dairy facilities with expired discharge permits for which the department has not received an application for renewal of the discharge permit (NMED Exhibit WO-12). The Department's proposal streamlines the application process and seeks to eliminate any gaps in discharge permit coverage and to renew currently expired discharge permits in a timely manner. The Department's proposal also streamlines the administration of discharge permits enabled by the specificity and certainty required under the new framework of the WQA.

The goal of preventing ground water pollution underlies the Department's proposals. As discussed in the testimony of Sarah McGrath and Bart Faris (NMED NOI Attachments 2 and 3) extensive contamination of ground water has occurred at dairy facilities. Pollution of ground water results in a loss of public water resources and ground water abatement is expensive for

permittees, the Department and the public. Preventing ground water contamination is more cost effective and efficient than remediating ground water contamination. For example, while the design, construction and installation of lined impoundments, and the installation of monitoring wells poses upfront costs for a permittee, these costs are less than the costs of abating ground water contamination and the loss of precious state drinking water supplies. Where possible, the Department's proposes cost effective and efficient measures to prevent ground water contamination.

Finally, the Department proposes reliable methods and practices throughout its proposed Dairy Rules. As discussed above, the Department has learned which practices are unreliable. Reliable methods and practices are especially important in monitoring and sampling water quality. The Department, permittees and the public rely on the data to determine whether ground water is being protected.

## **V. TESTIMONY ON SPECIFIC PROVISIONS OF THE DEPARTMENT'S PROPOSED DAIRY RULE**

In addition to my testimony in this attachment, I am also providing testimony on the necessity of the language in the Department's proposed January 29, 2010 Dairy Rule. My testimony on the rationale for the adoption of specific portions of the Department's proposed Dairy Rule can be found in NMED NOI Attachment 8. My testimony in NMED NOI Attachment 8 and the accompanying Exhibits in support of that testimony is listed in each section that it appears as the testimony of William C. Olson.

## **VI. REFORMATTING OF PROPOSED DAIRY RULE**

Any rule adopted by a board, commission, or agency in New Mexico must be published by the New Mexico Commission of Public Records (NMCPR) in the New Mexico Register to become valid and enforceable. All rules filed with the NMCPR must adhere to the style and format requirements of 1.24.10 NMAC; non-conforming rule filings will be rejected by the NMCPR.

The Department's proposed dairy rule dated January 29, 2010 contains supplemental permitting requirements applicable to discharges from dairy facilities that are included in 20.6.2 NMAC. The Department initially sought to keep both the general permitting requirements and the supplemental permitting requirements for dairy facilities in the same part (Part 2). It was the Department's understanding that the requirements of 1.24.10 NMAC would allow this formatting. Upon consultation with the NMCPR, however, it was determined that the dairy rule must be filed as a separate part to meet the requirements of 1.24.10 NMAC. Thus, the dairy rule will have to be reformatted as 20.6.6 NMAC prior to filing with the NMCPR and publication in the New Mexico Register, and the dairy rule that is adopted by the WQCC following this public hearing must be the reformatted version that meets the requirements of 1.24.10 NMAC.

NMED provides NMED NOI Attachment 10 an example of how the dairy rule will need to be reformatted as 20.6.6 NMAC. My testimony here summarizes the noteworthy changes to the dairy rule to achieve compliance with 1.24.10 NMAC and proposed corrections of errors discovered when reformatting the rule. Minor changes in punctuation (e.g., change from a colon to a period; change from upper case to lower case; etc.) to achieve compliance with 1.24.10 are not noted below.

1. The first seven sections of Part 6 (issuing agency; scope; statutory authority; duration; effective date; objective; and definitions) are specified by 1.24.10 NMAC as the topics to

be addressed by the first seven sections of all New Mexico rules. The dairy rule has been reformatted to comply with this requirement.

2. The following “crosswalk” shows the conversion of sections in the proposed dairy rule dated January 29, 2010 to the reformatted dairy rule as 20.6.6 NMAC:

<b>20.6.2 NMAC (proposed dairy rule dated 1-29-10): previous section designation</b>	<b>20.6.6 NMAC: proposed section designation</b>
3200	(Part) 6
3201	6
3202	7
3203	8
3204	9
3205	10
3206	11
3207	12
3208	13
3209	14
3210-3214: Reserved	
3215	15
3216	16
3217	17
3218	18
3219	19
3220	20
3221	21
3222	22
3223	23
3224	24
3225	25
3226	26
3227	27
3228	28
3229	29
3230	30

<b>20.6.2 NMAC (proposed dairy rule dated 1-29-10): previous section designation</b>	<b>20.6.6 NMAC: proposed section designation</b>
3231	31
3232	32
3233	33
3234	34
3235	35

3. 20.6.6.7.B(7) NMAC: “Dairy rule” rather than “dairy rules” is the appropriate reference to the supplemental permitting requirements for dairy facilities when it is a separate part (i.e., Part 6). This change has been made throughout NMED NOI Attachment 10.
4. 20.6.6.8.C NMAC: When the dairy rule is a separate part (i.e., Part 6), this language is no longer necessary and can be deleted.
5. 20.6.6.10.G(3) NMAC: Changed the reference to “these regulations” to “the dairy rule.” Identical changes were made throughout the document.
6. 20.6.6.11.B(4) NMAC: Added “and 20.6.6 NMAC” to address the reformatting of the dairy rule as Part 6.

Although only an example of what reformatting NMED’s proposal as 20.6.6 NMAC would look like, NMED NOI Attachment 10 also includes any changes to NMED’s proposal identified in NMED NOI Attachment 8.

## **VII. STATUTORY CRITERIA FOR ADOPTING THE DAIRY RULES**

In promulgating the Dairy rules, the Commission must consider certain statutory criteria. Subsection E of NMSA 1978 Section 74-6-4 (2009) states as follows:

The commission:

....



E. shall adopt, promulgate and publish regulations to prevent or abate water pollution in the state or in any specific geographic area, aquifer or watershed of the state or in any part thereof, or for any class of waters, and to govern the disposal of septage and sludge and the use of sludge for various beneficial purposes.[...] Regulations may specify a standard of performance for new sources that reflects the greatest reduction in the concentration of water contaminants that the commission determines to be achievable through application of the best available demonstrated control technology, processes, operating methods or other alternatives, including where practicable a standard permitting no discharge of pollutants. In making regulations, the commission shall give weight it deems appropriate to all relevant facts and circumstances, including:

- (1) character and degree of injury to or interference with health, welfare, environment and property;
- (2) the public interest, including the social and economic value of the sources of water contaminants;
- (3) technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved;
- (4) successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses;
- (5) feasibility of a user or a subsequent user treating the water before a subsequent use;
- (6) property rights and accustomed uses; and
- (7) federal water quality requirements.

Each of the listed criteria is addressed below.

- (1) *character and degree of injury to or interference with health, welfare, environment and property.*

In New Mexico, ground water is public property, and belongs to the state. Dairies pose a high potential risk of ground water contamination if wastewater effluent and stormwater is not stored and handled properly, and due to waste products associated with having many cows in a small area. The Department has numerous documented cases of dairy facilities in New Mexico that have contaminated ground water with nitrates, total dissolved solids, chloride, and sulfate as discussed in the Department testimony of Sarah McGrath and Bart Faris. In fact, a majority of dairies in New Mexico have already contaminated ground water in excess of ground water

standards. Contamination in excess of the water quality standards promulgated by the Commission presents a risk to health, welfare, the environment and property.

(2) *the public interest, including the social and economic value of the sources of water contaminants.*

The Supreme Court has characterized water as "our greatest natural resource." State ex.rel. Ericson v. McLean, 62 N.M. 264, 272, 308 P.2d 983 (1957). Ground water is a public resource, that approximately 90 percent of the population of New Mexico depends on as a drinking water source.<sup>5</sup> There is a strong public interest in maintaining clean, uncontaminated ground water in New Mexico.

On the other side of the equation, dairies also have a social and economic value - they provide jobs and a source of income for some New Mexicans. One source has estimated the economic value of dairy production in New Mexico to be approximately \$2.7 billion a year.<sup>6</sup> The Dairy Rule proposed by the Department is intended to assure that ground water is not contaminated. The alternative to prevention of contamination is to remediate contamination after it occurs. The Department has found that while there is undoubtedly a cost to industry of taking the steps called for in the regulations to prevent and monitor ground water contamination, it is far less than the cost of remediating ground water contamination once it has occurred, which helps preserve the economic viability of the industry. Moreover, good prevention practices assure that costs are borne by the person or business responsible for the contamination, rather than creating the potential that the public or others will bear the cost of remediation for contamination. The Department's proposed Dairy Rule strikes a fair balance between the interests of the state and

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<sup>5</sup> 2008-2010 State of New Mexico CWA §303(d)/§305(b) Integrated Report, P.ix.

<sup>6</sup> "The New Mexico Dairy Industry," Victor E Cabrera, Extension Dairy Specialist, NMSU Agricultural Science Center at Clovis.

public in maintaining uncontaminated ground water, and the economic value of the industrial source of the water contaminants.

(3) *technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved.*

The ground water contamination prevention measures called for in the Department's proposed Dairy Rule are technically practical and economically reasonable. §74-6-4 (E) states that “[r]egulations may specify a standard of performance for new sources that reflects the greatest reduction in the concentration of water contaminants that the commission determines to be achievable through application of the best available demonstrated control technology, processes, operating methods or other alternatives, including where practicable a standard permitting no discharge of pollutants” Prevention of ground water contamination at dairies is achievable through available control technologies and proper operating methods. None of the prevention and monitoring practices called for in the Department's proposal are novel or technically impractical. While there is a cost associated with the monitoring and prevention measures, the cost is far less than the cost of remediation, which will have to be undertaken in the event that contamination does occur.

(4) *successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses.*

The primary concern of the Department's proposed Dairy Rule is to prevent ground water contamination, and to monitor ground water to assure that it remains uncontaminated.

Successive uses for the public ground water potentially include domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses. These potential future uses make preservation of the resource important to the state and its citizens. This is why the Commission's water quality regulations require that contaminated ground water be abated to applicable water quality standards.

(5) *feasibility of a user or a subsequent user treating the water before a subsequent use.*

Should ground water become contaminated by a dairy, it is possible that users or subsequent users of the ground water could treat the water before use. This is not a preferred alternative to prevention, and the costs likely would be much higher than prevention. In addition, it could shift the costs of the contamination from those who caused the contamination to the public or future generations. The Commission's water quality regulations require abatement of contaminated water by the responsible party, rather than requiring treatment of water by subsequent users.

(6) *property rights and accustomed uses.*

The New Mexico Dairy Industry had a 33% growth rate during the period 2001-2006 ("The New Mexico Dairy Industry," Victor E. Cabrera, Extension Dairy Specialist, NMSU Agricultural Science Center at Clovis.). This indicates that the dairy industry on the scale it is practiced today, is not an accustomed use in New Mexico, and was historically much smaller than it currently is. In addressing property rights, it is important to note that a person does not have the right to contaminate ground water in excess of an applicable ground water quality

standard. As I stated earlier, ground water is public property, and is protected as a public resource.

(7) *federal water quality requirements.*

The Department's proposed regulations recognize that stormwater is regulated by the Environmental Protection Agency, because New Mexico is one of five states that does not have primacy over surface water discharges. As a result, the Department's proposed regulations refer to the federal EPA CAFO rules for stormwater discharges.

Finally, In addition to the above statutory criteria, §74-6-4(K) requires that the Commission must consider, in addition to the factors listed in Subsection E, the “best available scientific information.” In developing and proposing these Rules, the Department has relied upon the best scientific information available to it.

## **VIII. CONCLUSION**

In conclusion, the Department recommends for the reasons contained in my testimony in this document, my testimony in NMED NOI Attachment 8, and the testimony of Department witnesses Sarah McGrath, Bart H. Faris, William W. Pearson, George B. Schuman, Robert George, and Chuck Thomas that the Commission adopt the January 29, 2010 Dairy Rule as proposed and amended by the Department.

Thank you. That concludes my direct testimony.